Christopher D. Wilson
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Professional Preparation

Michigan State University	**Zoology (Science Education)**	**Ph.D., 2005**

Research focus on learning progressions in K-12 science, undergraduate science teaching and learning, assessment development, pre-service teacher education, and informal science education.

Michigan State University	**Zoology (Evolutionary Biology)**	**M.S., 2000**

Research focus on mathematical models of evolution.

University of Liverpool	**Zoology (General)**	**B.Sc., 1996**

Focus on evolution and ecology.

Appointments

2012 – present	Senior Science Educator, BSCS, Colorado Springs, CO
2007 – 2012	Science Educator, BSCS, Colorado Springs, CO
2005 – 2007	Visiting Assistant Professor, Center for Curriculum Materials in Science, College of Education, Michigan State University
1997 – 2005	Graduate Assistant, Michigan State University

Recent Products

1. Taylor, J. A., Getty, S., Kowalski, S. M., Wilson, C. D., & Carlson, J. (in press). An Efficacy Trial of Research-Based Curriculum Materials with Curriculum-Based Professional Development. American Educational Research Journal.
2. *Taylor, J., Kowalski, S., Wilson, C., Getty, S. and Carlson, J. (2013). Conducting causal effects studies in science education: Considering methodological trade-offs in the context of policies affecting research in schools. *Journal of Research in Science Teaching*, *50* (9), 1127-1141.
3. Wilson, C. D., Taylor, J. A., Kowalski, S. M., & Carlson, J. (2010). The relative effects and equity of inquiry-based and commonplace science teaching on students' knowledge, reasoning and argumentation. *Journal of Research in Science Teaching*, *47*(3), 276–301.
4. Reichsman, F., Wilson, C. D., Gardner, A., & Lord, T. (2015). Embedding NGSS Science Practices in Digital Game-Based Genetics Materials: Measuring Content Knowledge, Argumentation, and Motivation. Paper presented at the meeting of the National Association for Research in Science Teaching, Chicago, IL.
5. Taylor, J. A., Wilson, C. D., Roth, K (2015). Testing the Consensus Model of Effective PD: Analysis of Practice and the PD Research Terrain. Paper presented at the meeting of the National Association for Research in Science Teaching, Chicago, IL.
6. Wilson, C.D. (2013). Instructional sensitivity as a critical component and significant challenge in causal effects education research. Paper presented at the First Annual Instructional Sensitivity Conference, Lawrence, KS.
7. Wilson, C.D., Taylor, J.A., Roth, K (2013). Demonstrating the Impacts of Lesson Analysis PD: Meeting the Challenge of Developing Instructionally Sensitive Instruments. Paper presented at the meeting of the National Association for Research in Science Teaching, Puerto Rico.
8. Taylor, J.A., Kowalski, S.M. & Wilson, C.D. (2013) Investigating Publication Bias for Recent Causal Effects Studies in Science Education. Paper presented at the 2013 AERA Conference, San Francisco, PA.
9. Carlson, J. & Wilson C.D. (2012). Next Generation Science Standards: Tracking the Federal Research Agenda. Paper presented at the meeting of the National Association for Research in Science Teaching, Indianapolis, IN.

*Winner of the JRST award, for the article that is judged the most significant publication for that year.

10. Wilson, C. D., Anderson, C. W., Heidemann, M., Merrill, J. E., Merritt, B. W., & Richmond, G. (2006). Assessing student's ability to trace matter in dynamic systems in cell biology. *Cell Biology Education – Life Sciences Education*, *5*(4), 323–331.

Synergistic Activities

Research on Assessment and Research Methods

- PI on the BSCS PCK*lex project, applying lexical analysis to the measurement of teacher pedagogical content knowledge (PCK)
- Researching instructional sensitivity as a psychometric property and the challenges of measuring impacts on student achievement.
- Conducting the meta-analysis portion of NSF PRIME study examining effect sizes from science education intervention studies.
- Developing, validating and analyzing measures of student scientific practices across a range of curriculum and professional development intervention studies.

Research on Professional Development

- PI on the BSCS ViSTA+ project, examining the impacts of an innovative instructional approach in science methods courses on pre-service teachers and their students' learning.
- PI on the BSCS STeLLA project – developing instructionally sensitive instruments to measure the impact of PD on teacher & student achievement.
- Researcher on BSCS Project PRIME: Promoting Research-based Instructional Materials for Educators – a study of PCK among high school science teachers.
- Evaluation lead of Colorado State University NOYCE scholarship, GK-12 and Teacher Learning Partnership projects.

Research on Curriculum Materials, Teaching and Learning.

- Co-PI on a study researching the effectiveness of a cyber-learning model on students' reasoning and argumentation about genetics (NSF DRK-12 partnership with Concord Consortium).
- Lead on a randomized control trial examining the effectiveness of inquiry-based materials organized around the BSCS 5E instructional mode, as compared to commonplace materials.
- Lead researcher on a study measuring the effectiveness of educative multi-disciplinary science materials in a randomized control study in Washington public schools.

Collaborators and Other Affiliations

Collaborators

- Stanford University: Jonathan Osborne, Janet Carlson
- Abt Associates: Joseph Taylor, Alina Martinez
- Cal Poly Pomona: Kathy Roth, Paul Beardsley
- Michigan State University – Mark Urban-Lurain Andy Anderson, John Merrill,
- Concord Consortium: Chad Dorsey, Frieda Reichsman
- University of Missouri: Troy Sadler
- Colorado State University: Tom Chen, Donna Cooner, Michael DeMiranda.
- Other – Karen Mutch-Jones, TERC; George DeBoer, AAAS Project 2061; Jessaca Spybrook, Western Michigan University; Ted Britton, WestEd, Bill Boone, Miami University (OH),

Affiliations

- National Association for Research in Science Teaching (NARST) – Editorial Board Member
- American Educational Research Association (AERA)
- National Council on Measurement in Education (NCME)
- National Science Teachers Association (NSTA)
- National Association of Biology Teachers (NABT)